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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/037,467 | 12/21/2001 | Braulio A. Polanco | KCC-17,315 | 5174 |
| 35844 | 7590 | 10/16/2003 | EXAMINER | |
| PAULEY PETERSEN KINNE & ERICKSON 2800 WEST HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195 | | | PIERCE, JEREMY R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/037,467 | POLANCO ET AL. | |
| | Examiner | Art Unit | |
| | Jeremy R. Pierce | 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-27,31-33 and 35-59 is/are pending in the application.
- 4a) Of the above claim(s) 15-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27,31-33 and 35-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on September 22, 2003 has been entered. Claims 27, 31, 35, and 49-59 have been amended.

Election/Restrictions

2. Applicant's election of Group II, claims 27, 31-33, and 35-59 in the response dated September 22, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 15-26 have been withdrawn from consideration.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 41 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 41 recites "the fibers exhibit substantially regular waving at a first major surface of

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the web." The specification does not disclose how such a structure is achieved in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 41 and 49-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 41 recites "the fibers exhibit substantially regular waving at a first major surface of the web." What does it mean for the fibers to exhibit "substantially regular waving?" It is unclear what the claim is defining because there is no support or definition for "substantially regular waving" in the specification. The Examiner cannot determine what is meant by this limitation or the type of structure the resulting nonwoven fabric would have if the fibers exhibited substantially regular waving. The Examiner will assume that a wavy structure in the fibers, such as them being crimped, would satisfy the claimed limitation.

Claims 49-59 are written as if they were dependent upon a process claim. However, the claims from which they depend are product claims and not process claims. For example, claim 49 recites, "A high loft, low density nonwoven web, *made according to the process of Claim 35*" (emphasis added). However, claim 35 is directed to product claim. Although a process defines the product of claim 35, i.e. a product-by-process claim, the language of dependent claims 49-59 is somewhat indefinite because

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they refer to the "process of claim 35" when claim 35 is not a process claim. The Examiner would suggest that a claims like claim 49 should be changed to "A high loft, low density nonwoven web according to claim 35, wherein the process further comprises..." The current language is vague, and a change should be made to reflect that the parent claim is a product claim and not a process claim.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 27, 31-33, 35, 36, 41-44, and 46-59 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over White et al. (WO 00/66057).

White et al. disclose a nonwoven web with a plurality of substantially continuous fibers having a z-direction orientation (page 3, lines 26-29). The base material for the nonwoven fabric may be a bicomponent spunbond (page 9, lines 17-21). The bicomponent fibers may have a side by side configuration and be crimped (page 11, line

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16-17). White et al. do not teach the same processing steps for making the nonwoven fabric. However, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). The use of 35 USC 102/103 rejections for product-by-process claim has been approved by the courts. "The lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical

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comparisons therewith." *In re Brown*, 173 USPQ 685, 688 (CCPA 1972). With regard to claims 32 and 33, White et al. disclose that superabsorbent particles may be present in the web (page 12, line 4). With regard to claim 36, White et al. disclose the web may weigh between 0.25 and 50 osy (page 10, line 11). With regard to claims 41, 42, 47, and 48 the fibers are randomly crimped (column 11, lines 16-17) and exhibit shingled layers of buckled z-direction orientation (Figures 4-9). With regard to claim 43, the fibers may comprise polypropylene and polyethylene (page 11, lines 23-24). With regard to claim 44, White et al. disclose the fibers may comprise PET, nylon, PBT, and various polyolefin copolymers (page 8, line 24 –page 9, line 3). With regard to claim 46, the nonwoven web may be bonded by adhesive or thermal bonding (page 9, lines 4-6). With regard to claims 49-59, these claims are directed to additional processing steps. As set forth above, the patentability of a product does not depend on its method of production. Applicant has the burden to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.

Claim Rejections - 35 USC § 103

10. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al.

White et al. do not disclose the claimed density and loft values for the nonwoven web. However, both the present invention and the invention of White et al. are used for thermal and sound insulation (page 1, line 10), and making the web of White et al. within the claimed density range of between 0.002 and 0.05 g/cc and the claimed loft

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range of 0.02 and 1.50 inches would be an obvious modification to a person skilled in the art. White et al. disclose that characteristics of the web may be varied by adjusting elements such as nip geometry, distance between moving surfaces, vacuum strength and location, bonding mechanism, and speed of material entering and leaving the nip (page 9, lines 22-27). Adjusting these variables would affect the loft and the density of the web. It would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the above stated variables in order to create a web material with an optimized density and loft for its intended use as insulation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

11. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. in view of Frankosky et al. (U.S. Patent No. 5,527,600).

White et al. do not disclose the fibers to comprise cross sectional shapes recited in claim 45. Frankosky et al. teach that hollow fibers and fibers of variable cross-section are commonly used in insulation materials (column 3, lines 63-67). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use fibers that are hollow or have non-round cross-sectional shapes in order to provide an insulation mat with desired properties, such as lighter weight, improved wicking, or better absorption to the final product for its intended use.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JRP
jrp

Elizabeth M. Cole
ELIZABETH M. COLE
PRIMARY EXAMINER